



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/660,719 | 09/11/2003 | Phillip A. Sollami | M118A | 7658 |

30406 7590 06/07/2005

ROBERT L. MARSH
54 DANADA DRIVE
P.O. BOX 4468
WHEATON, IL 60187-4468

EXAMINER

THOMPSON, KENNETH L

ART UNIT PAPER NUMBER

3672

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/660,719

Applicant(s)

SOLLAMI, PHILLIP A.

Examiner

Kenneth Thompson

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-7 and 9-14 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 16 May 2005.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Mine Ceiling Drill Bit and Blade.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Vagins et al., U.S. 3,136,246.

Regarding claims 1-4, Vagins et al. discloses an elongate bit body (15) having a cutting end (17) and a tubular mounting end (16), with an inner opening (21), the cutting end having a transverse slot (18) for retaining a cutting blade, the cutting end having an aperture (27) communicating with the inner opening, the cutting end having planar tables (radial flange between 15 and 16) perpendicular to the axis of rotation of the bit adjacent the slot (18) for reducing a penetration rate of the drill bit (planar surface 15 appears to be inherently capable of performing substantially as claimed), and a hardened blade (18) retained in the transverse slot.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pennington, Jr. et al., U.S. 4,984,944 in view of Sheirer et al., U.S. 5,184,689.

Regarding claim 8, Pennington, Jr. et al. discloses in figures 26-30 a blade (410), a cutting end (26,24), a mounting portion (12,14,16,18), and having first (side right of 52) and second (side left of 52) opposing cutting sides positioned symmetrically about the longitudinal axis, each cutting side having a leading face (32,28) and a trailing face (34,30), the leading face and the trailing face of each of the cutting sides having outer end edges (corners opposite 20 and 22) and forward edges (22,20), a first outer end surface (18) extending between adjacent outer end edges (22 and corner opposite 22) of the leading (32) and trailing (34) faces of the first side, a first cutting surface (24) extending between the forward edges of the leading (32) and trailing (34) faces of the first side (side right of 52), a stress relief surface (45) having edges along the leading face (32) of the first cutting side, the first outer end surface (18) and the cutting surface (24). Pennington, Jr. et al. all the claimed subject matter except for the bit body having a forward cutting end and a rearward mounting end, the cutting end having a transverse slot therein, and the blade received in the slot in the bit body. Sheirer et al. teaches use of the bit body (10) having a forward cutting end (at 18) and a rearward mounting end at 12), the cutting end having a transverse slot therein, and the blade received in the slot in the bit body (col. 6, lines 23-26) as well known in the art. It would have been obvious to one having ordinary

Art Unit: 3672

skill in the art at the time of the invention to arrange the blade disclosed by Pennington, Jr. et al. to be mounted to a bit as taught by Sheirer et al. since it well known in the art of rock drilling to mount a separate drill blade to slots in drill bits.

Allowable Subject Matter

Claims 5-7 and 9-14 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose or suggest all the claimed subject matter including the blade having a longitudinal slot extending axially rearward from the cutting end, the slot defined by opposing side walls and a central bridge extending between the side walls, the bridge having a cutting edge extending between the walls and having first and second sides that slope away from the edges.

The prior art of record does not disclose or suggest all the claimed subject matter including the first cutting side having a forward cutting surface, the leading face for the first cutting side having a forward cutting edge at an intersection with the forward cutting surface and an inner edge at an intersection with the first inner wall, a stress relief surface having an edge along the leading face for the first cutting side, the first forward cutting surface and the first inner wall.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Thompson whose telephone number is 571 272-7037. The examiner can normally be reached on 7:00 am - 4:30 pm.

Art Unit: 3672

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



29 May 2005

KT